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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/420,772	10/19/1999	OSAMU YAMADA	862.3073	3279

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EXAMINER

LE, BRIAN Q

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 02/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/420,772

Applicant(s)

YAMADA ET AL.

Examiner

Brian Q Le

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,7,12-16,18 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7,12-16,18 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Amendment and Arguments

1. Applicant's amendment filed June 14, 2002, has been entered and made of record.
2. Applicant's arguments with regard to claims 1, 3, 4, 7, 12-16, 18 and 19 have been fully considered, but are not considered persuasive because of the following reasons:

For claim 1, the Applicant argues (on page 7) that Miyashita sets only kind of parameter for converting saturation. However, Miyashita clearly indicates that user can specify more than one parameter for the converting saturation (column 10, lines 25). Furthermore, the Applicant does not disclose whether or not the present invention sets more than one parameter for converting saturation in the claim. Also, the Applicant alleges that Miyashita converts a high-saturation side and the low-saturation side at the same conversion ratio, regardless of the value of the inputted saturation, but does not indicate where Miyashita disclosed this.

Whether Miyashita disclosed this limitation or not is irrelevant because Miyashita discloses the claimed "saturation conversion characteristics on the basis of each conversion condition for low-saturation side and high-saturation side, where said saturation conversion characteristic shows the relationship between input saturation information and output saturation information (column 11, lines 30-59). Therefore, Miyashita clearly shows the saturation conversion characteristic, used to convert the saturation, on the basis of each conversion condition for low-saturation side and high-saturation, where the saturation conversion characteristic

Art Unit: 2623

shows the relationship between input saturation information and output saturation information.

Thus, the rejections of all of the claims are maintained.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 3, 4, 7, 12-16, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyashita U.S. Patent No. 6,031,543.

Referring to claim 1, Miyashita teaches an image processing apparatus comprising:

Saturation calculation (saturation correction) unit (FIG. 16) arranged to calculate saturation information of an image;

A saturation conversion characteristic generating unit arranged to generate a saturation conversion characteristic on the basis of each conversion condition for low-saturation side and high-saturation side, where said saturation conversion characteristic shows a relationship between input saturation information and output saturation information (column 11, lines 30-59); and

A saturation conversion unit (FIG 44 and FIG 45) arranged to convert the saturation (column 3, line 40-44) of the image on the basis of said saturation conversion characteristic.

It is inherent that saturation calculation also is saturation correction especially as demonstrated in FIG 16, a saturation correction requires analysis of color and colors saturation conversion.

For claim 3, Miyashita also teaches the apparatus further comprising a conversion condition setting unit arranged to set said each conversion condition for low-saturation side and high-saturation side by using said saturation information (column 10, line 25-60).

Referring to claim 4, Miyashita teaches the apparatus further comprising:

An instruction unit arranged to make an instruction input by a user (column 3, line 58-60) in order to set said each conversion condition for low-saturation side and high-saturation side (column 10, lines 22-29).

Art Unit: 2623

Referring to claim 7, Miyashita teaches the apparatus wherein the saturation conversion characteristic exhibits a monotonous increase (column 11, line 33-46).

Referring to claim 12, Miyashita discloses the apparatus further comprising:

A detection unit arranged to detect a color distribution of the image (FIG 6, FIG 7 and column 5, line 54);

A generation unit arranged to generate gradation correction information (column 8, line 44-46) of the image on the basis of the color distribution; and

A gradation correction unit arranged to perform gradation correction of the image on the basis of the gradation correction information (column 8, line 22-29 and column 8, line 52-55).

For claim 13, Miyashita also teaches the apparatus wherein said saturation conversion unit (FIG 44 and FIG 45) performs saturation conversion for an image which has undergone the gradation correction (column 9, line 21-24) by said gradation correction unit. Also it is inherent that gradation correction is required during the gradation conversion process which is clearly described by Miyashita.

Referring to claim 14, Miyashita further teaches the apparatus wherein said generation unit comprises:

Art Unit: 2623

A highlight calculation unit (FIG 25, FIG 26A, FIG 26B, FIG 26E and FIG 26F) arranged to calculate highlight area information (column 9, line 25-31) of an image on the basis of the color distribution; and

A white balance calculation unit (FIG 28-115 and 117) arranged to calculate white balance information on the basis of the highlight area information (FIG 29-115 and 117, FIG 30-115 and 117, FIG 31-115 and FIG 32-115) and a predetermined highlight value (column 10, line 24-32, "HL" parameters), and wherein

Said gradation correction unit corrects gradation of the image on the basis of the white balance information and the highlight value (column 10, line 25-44).

It is inherent that highlight and intensity are the white balance calculation. Without these two parameters, white balance calculation can not be processed properly.

Referring to claim 15, Miyashita discloses the apparatus wherein said generation unit comprises:

A shadow calculation unit arranged to calculate shadow information of an image (FIG 25, FIG26C, FIG26D-FIG26F, FIG28-32); and

A black balance calculation unit (FIG 25, FIG26C, FIG26D-FIG26F and FIG28-116 and 117) arranged to calculate black balance information on the basis of the shadow area information (FIG 28, 116-117;

Art Unit: 2623

FIG 29, 116-117; FIG 30, 116-117) and a predetermined shadow value (column 10, line 24-32, "SD" parameters), and wherein

Said gradation correction unit corrects gradation of the image on the basis of the black balance information and the shadow value (column 10, line 25-44).

It is inherent that shadow and the intensity are also the black calculation. Without these two significant means, black balance calculation can not be determined.

For claims 16 and 18, please refer back to the explanation of claims 1 and 3.

For claim 19, please refer to claim 1 for all the limitation.

Furthermore, Miyashita discussed the concept of recording medium (storage system) (column 1, 64-67) that allow program codes (software or executable program) (column 3, line 62-63) to allow user to control the image processing method. Therefore, it is inherent to have a recording medium comprising program codes of an image processing method comprises the limitation of claim 1.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2623


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Q Le whose telephone number is 703-305-5083. The examiner can normally be reached on 8:30 A.M - 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5397 for regular communications and 703-308-5397 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

BL
February 6, 2003


Jon Chang
Primary Examiner